WHAT IS CLAIMED IS:

1. A device that determines condensation conditions and suppresses condensation having a given physical state from a surface, comprising:

a first thermal sensor in thermally conductive contact with the surface;

a second thermal sensor in an environment separated from the surface;

a humidity sensor in the environment of the second thermal sensor;

a condensation suppression mechanism configured to suppress condensation having the given physical state from the surface; and

a circuit configured to cause the condensation suppression mechanism to be activated when a temperature sensed by the first thermal sensor, a temperature sensed by the second thermal sensor, and a humidity sensed by the humidity sensor indicate that a condensation condition requires suppression at the surface.

2. The device of claim 1 wherein the environment of the second thermal sensor is an adjacent ambient space with respect to the surface.

3. The device of claim 2 wherein the circuit determines that the condensation condition requires suppression at the surface by determining, from the temperature sensed by the second thermal sensor and the humidity sensed by the humidity sensor, the pressure of steam in the environment of the second thermal sensor.

4. The device of claim 3 wherein the circuit determines that the condensation condition requires suppression at the surface by determining a ratio of the pressure of steam in the environment of the second thermal sensor to the saturated steam pressure at the temperature sensed by the first thermal sensor.

5. The device of claim 3 wherein the circuit determines that the condensation condition requires suppression at the surface by determining a difference between a temperature sensed by the first thermal sensor and a dew point temperature associated with the pressure of steam in the environment of the second thermal sensor.

6. The device of claim 1 wherein the second thermal sensor is in thermally conductive contact with a cooling device, and further comprising a circuit configured to activate the cooling device in order to maintain the second thermal sensor at a temperature that is lower than a temperature of the first thermal sensor, wherein the humidity sensor is in thermally conductive contact with the cooling device.

7. The device of claim 6 wherein the circuit is configured to cause the condensation suppression mechanism to be activated when the humidity sensor indicates a high humidity condition at the temperature that is lower than the temperature of the first thermal sensor.

8. The device of claim 1 wherein the condensation condition is a presence of condensation on the surface, and the condensation suppression mechanism is a condensation removal mechanism configured to remove condensation having the given physical state from the surface the device.

9. The device of claim 1 wherein the condensation condition is a near presence of condensation on the surface, and the condensation suppression mechanism is a condensation preclusion mechanism configured to preclude condensation having the given physical state from the surface the device.

10. The device of claim 1 wherein the given physical state is a liquid state.

11. The device of claim 1 wherein the surface is a windscreen.

12. The device of claim 11 wherein the surface is a windscreen of a vehicle.

13. The device of claim 1 wherein the surface is a helmet visor.

14. The device of claim 1 wherein the surface is a computer monitor screen.

15. The device of claim 1 wherein the surface is a window.

16. The device of claim 1 wherein the surface is an enclosure for electronic equipment.

17. The device of claim 1 wherein the surface is an eyewear surface

18. The device of claim 17 wherein the eyewear surface comprises goggles.

19. The device of claim 18 wherein the goggles are underwater goggles.

20. The device of claim 18 further comprising a protective enclosure enclosing at least the humidity sensor, the protective enclosure protecting the humidity sensor from exposure to liquid water.

21. The device of claim 20 wherein the protective enclosure further encloses the second thermal sensor and protects the second thermal sensor from exposure to liquid water.

22. The device of claim 1 wherein the surface is a respirator mask surface.

23. The device of claim 1 wherein the surface is an optical equipment surface.

24. The device of claim 1 wherein the surface is an electronic circuitry surface.

25. The device of claim 1 wherein the first and second thermal sensors are thermocouples.

26. The device of claim 1 wherein at least one of the first and second thermal sensors is a negative temperature coefficient thermistor.

27. The device of claim 1 wherein the first thermal sensor is in actual physical contact with the surface.

28. The device of claim 1 wherein the first thermal sensor is affixed to the surface.

29. The device of claim 1 wherein the first thermal sensor is embedded within the surface.

30. The device of claim 1 wherein the humidity sensor is a capacitive sensor.

31. The device of claim 1 wherein the condensation suppression mechanism comprises a fan.

32. The device of claim 1 wherein the condensation suppression mechanism comprises a heating mechanism.

33. The device of claim 1 wherein the condensation suppression mechanism comprises a mechanism configured to divert an airstream through a duct having a heating mechanism contained therein.

34. The device of claim 1 wherein the condensation suppression mechanism comprises an infrared source.

35. The device of claim 1 wherein the condensation suppression mechanism comprises a thermoelectric cooler having a cold side that causes moisture in an airstream to be condensed into liquid water and a hot side that subsequently re-heats the airstream.

36. The device of claim 1 wherein the circuit configured to cause the condensation suppression mechanism to be activated is configured to directly activate the condensation suppression mechanism.

37. A method of determining condensation conditions and suppressing condensation having a given physical state from a surface having a first thermal sensor in thermally conductive contact therewith, comprising:

sensing a temperature using the first thermal sensor;

sensing a temperature using a second thermal sensor in an environment separated from the surface;

sensing humidity using a humidity sensor in the environment of the second thermal sensor;

causing a condensation suppression mechanism to be activated in order to suppress condensation having the given physical state from the surface when the temperature sensed by the first thermal sensor, the temperature sensed by the second thermal sensor, and the humidity sensed by the humidity sensor indicate that a condensation condition requires suppression at the surface.

38. The method of claim 37 wherein the environment of the second thermal sensor is an adjacent ambient space with respect to the surface.

39. The method of claim 38 wherein the step of causing the condensation suppression mechanism to be activated comprises determining that the condensation condition requires suppression at the surface by determining, from the temperature sensed by the second thermal sensor and the humidity sensed by the humidity sensor, the pressure of steam in the environment of the second thermal sensor.

40. The method of claim 39 wherein the step of determining that the condensation condition requires suppression at the surface comprises determining a ratio of the pressure of steam in the environment of the second thermal sensor to the saturated steam pressure at the temperature sensed by the first thermal sensor.

41. The method of claim 39 wherein the step of determining that the condensation condition requires suppression at the surface comprises determining a difference between a temperature sensed by the first thermal sensor and a dew point temperature associated with the pressure of steam in the environment of the second thermal sensor.

42. The method of claim 37 wherein the second thermal sensor is in thermally conductive contact with a cooling device, the method further comprising activating the cooling device in

order to maintain the second thermal sensor at a temperature that is lower than a temperature of the first thermal sensor, wherein the humidity sensor is in thermally conductive contact with the cooling device.

43. The method of claim 42 wherein the wherein the step of causing the condensation suppression mechanism to be activated comprises causing the condensation suppression mechanism to be activated when the humidity sensor indicates a high humidity condition at the temperature that is lower than the temperature of the first thermal sensor.

44. The method of claim 37 wherein the condensation condition is a presence of condensation on the surface, and the condensation suppression mechanism is a condensation removal mechanism configured to remove condensation having the given physical state from the surface the device.

45. The method of claim 37 wherein the condensation condition is a near presence of condensation on the surface, and the condensation suppression mechanism is a condensation preclusion mechanism configured to preclude condensation having the given physical state from the surface the device.

46. The method of claim 37 wherein the given physical state is a liquid state.

47. The method of claim 37 wherein the surface is a windscreen.

48. The method of claim 37 wherein the surface is an eyewear surface

49. The method of claim 48 wherein the eyewear surface comprises goggles.

50. The method of claim 49 wherein the goggles are underwater goggles.

51. The method of claim 49 wherein a protective enclosure encloses at least the humidity sensor, the protective enclosure protecting the humidity sensor from exposure to liquid water.

52. The method of claim 51 wherein the protective enclosure further encloses the second thermal sensor and protects the second thermal sensor from exposure to liquid water.

53. The method of claim 37 wherein the humidity sensor is a capacitive sensor.